UCSF Benioff Children's Hospitals

Increasing Screening for Social Drivers of Health (SDoH) UCSF Pediatric Diabetes Program

T1DX-QI November Learning Session

Quality Improvement Team:
Angel Nip, MD
Jenise Wong, MD PhD
Barbara Liepman RN MS CDCES CHWC
November 11, 2024

UCSF Endocrinology
Department of Pediatrics

UCSF Benioff Children's Hospitals
Oakland | San Francisco

Clinic	Multidisciplinary Team	Volume and Demographics	Contacts
UCSF (pediatric) Benioff Children's Hospitals **Locations** • 2 main campuses (San Francisco and Oakland) • 6 satellite clinics	• 24 attending physicians (16 provide diabetes care, ~7 FTE) • 6 fellows (1 med/peds) • 1.2 NP (for diabetes) • 6 RN/CDCESs • 3.6 dieticians/CDCESs • 2.5 social workers • 1 psychologist (pending) • 1 transition coordinator • LVNs • MAs • Office Assistants	**Volume** • 150-200 newly diagnosed T1D patients seen annually • ~1600 established T1D and ~420 T2D patients **Demographics** • 53% with government insurance (40% in SF, 63% in Oakland) • 30% Latinx, 9% Black, 7% Asian American/Pacific Islander	**West Bay lead** Jenise Wong, MD PhD **East Bay lead** Angel Nip, MD **Quality Improvement Advisor, Pediatric Diabetes** Barbara Liepman, RN MS CDCES

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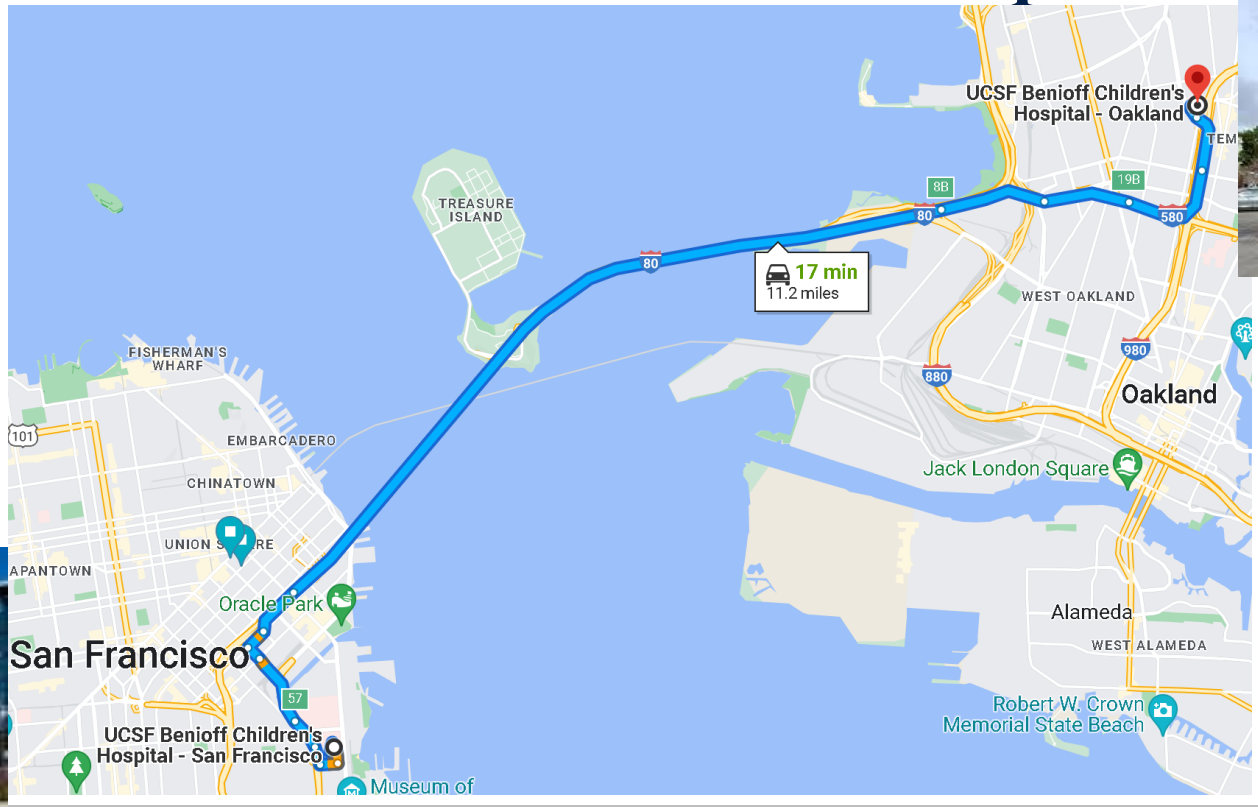

East Bay

West Bay

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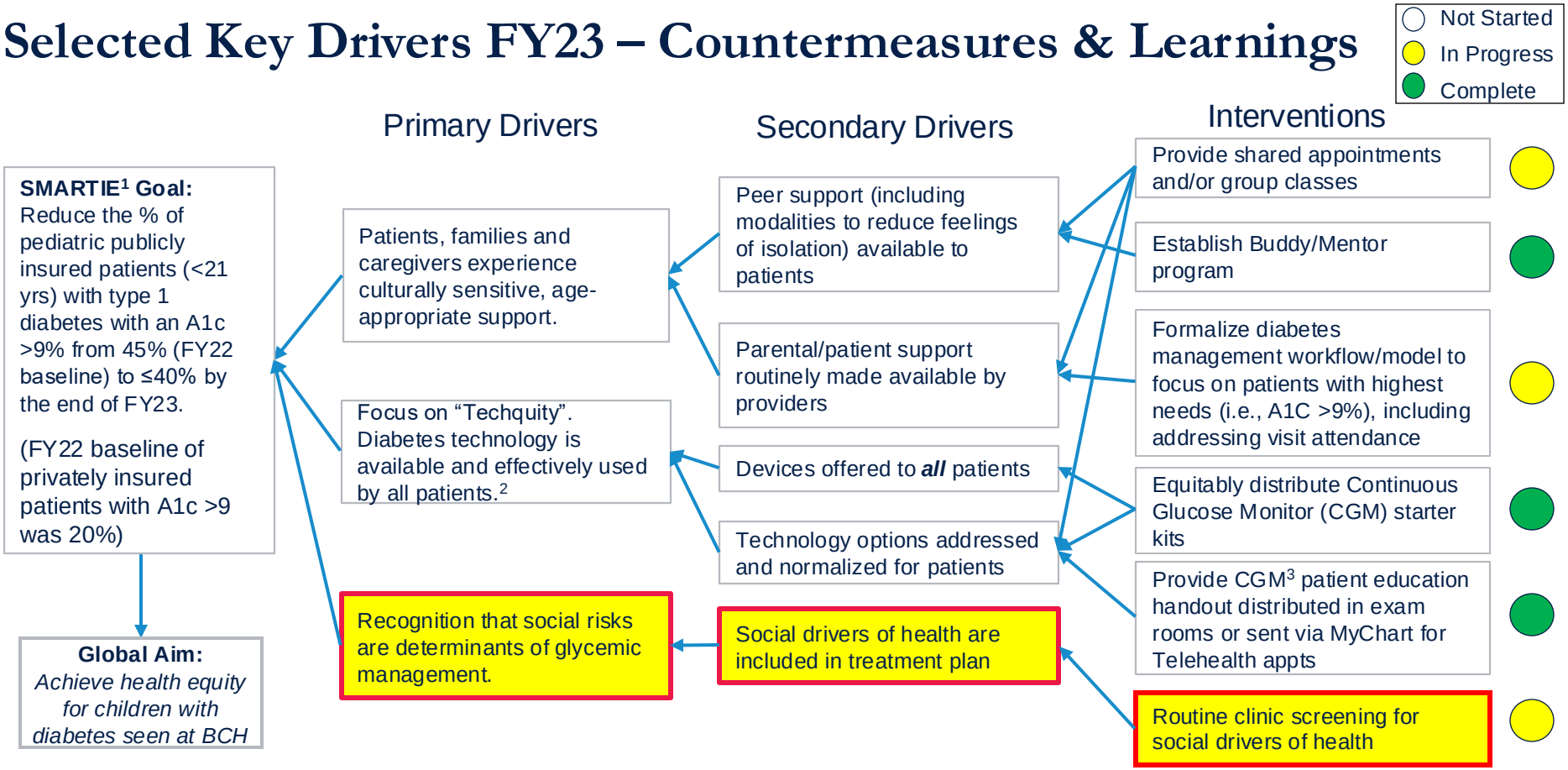
Selected Key Drivers FY23 – Countermeasures & Learnings



Updated 7/27/2023

[1] SMARTIE GOAL: S - Specific, M – Measurable, A - Achievable, R – Realistic, T – Timely, I – Inclusive, E - Equitable
[2] Focus on "TechQuity": the strategic development and deployment of technology to advance health equity

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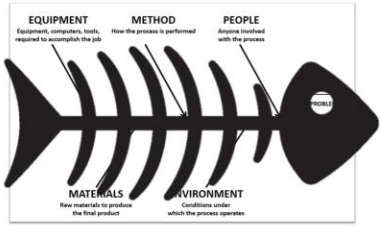
SDoH (Social Drivers of Health) Screening Project FY24

- **SMART GOAL: Increase annual screening rates for SDoH** [food insecurity, transportation] for patients with diabetes seen Cross-Bay using Screening Tools in APeX from an 11% FY23 baseline (4th quarter average) **to >50%** by the end of the **last quarter of FY24** (4th quarter average).
- **GLOBAL AIM:** *(Secondary Impact)*: Address SDOH to improve engagement with diabetes care and medical outcomes

Project Charter

- Project Name
- Charter Date
- SMART GOAL/Global Aim
- Problem Statement and Business Case
- Project Timeline/Key Milestones
- Project Team
- Project Scope
- Project Measures

Fishbone Diagram



EQUIPMENT
Equipment, computers, tools, required to accomplish the job

METHOD
How the process is performed

PEOPLE
Anyone involved with the process

No workflow or expectations to screen

Belief that screening is not necessary

Lack of knowledge of how to do screening and provide resources

Lack of standard screening questions

Lack of easily accessible resources specific to patient needs and locations

Unclear which SDOH domains should be prioritized

THE PROBLEM: Inconsistent screening for Social Drivers of Health (SDOH) in patients with diabetes

MATERIALS
Raw materials to produce the final product

ENVIRONMENT
Conditions under which the process operates

Measurement/ Data Collection Plan

- **General Report**: number of patients screened per month out of all total eligible visit encounters (virtual and in-person)

- **Project Report**: number of patients screened per month out of total eligible visit encounters (in-person only)

Questionnaire and Resources

Available in English, Spanish, Russian, Simple and Traditional Chinese

UCSF Benioff Children's Hospitals
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Patient Label

Date: _____

FOOD and TRANSPORTATION

SCREENING QUESTIONNAIRE

We believe that everyone deserves access to resources. It is especially important for people to have enough food and reliable transportation when managing diabetes care. If needed, we are here to assist with finding more support.

Please answer the following questions to help us better understand your current situation.

Food and Nutrition Resources

NEED HELP WITH TRANSPORTATION TO YOUR MEDICAL APPOINTMENTS?

YOUR MEDI-CAL MANAGED HEALTH CARE PLAN MAY BE ABLE TO HELP!

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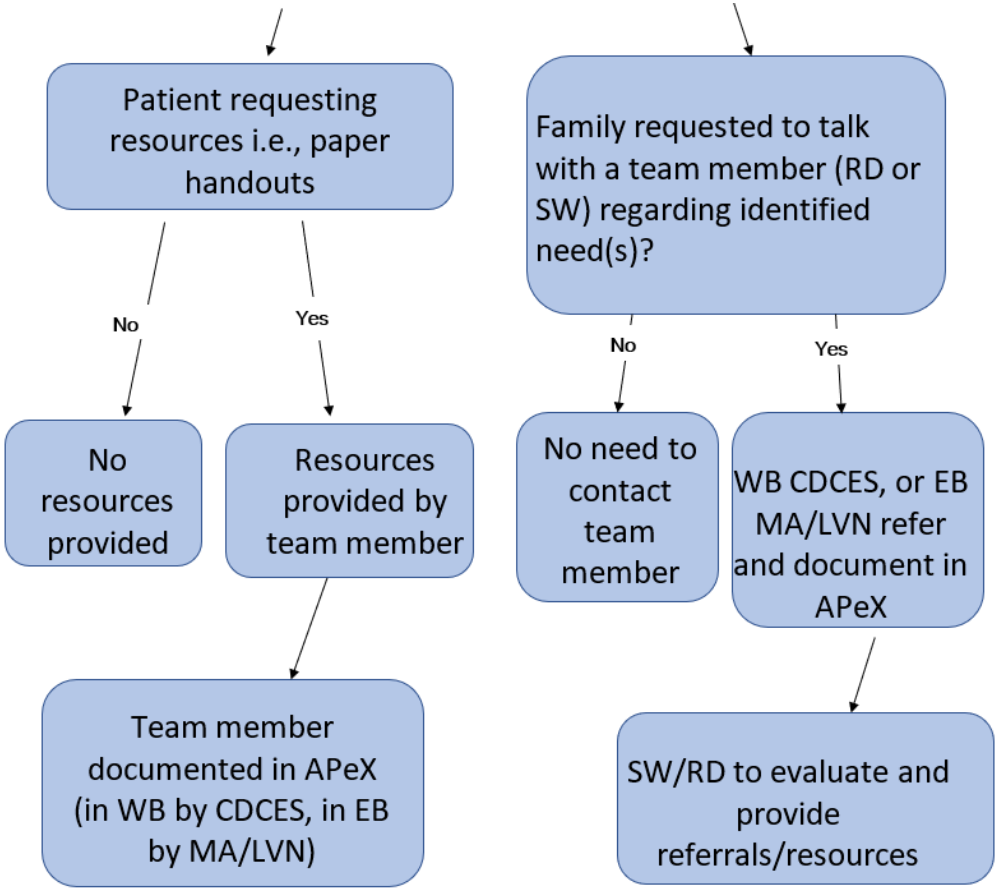
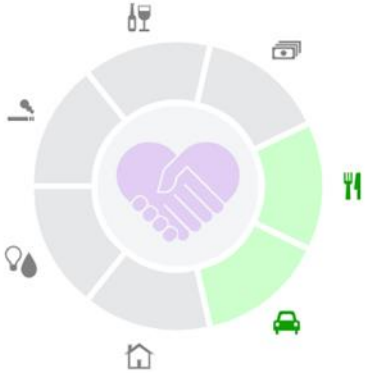
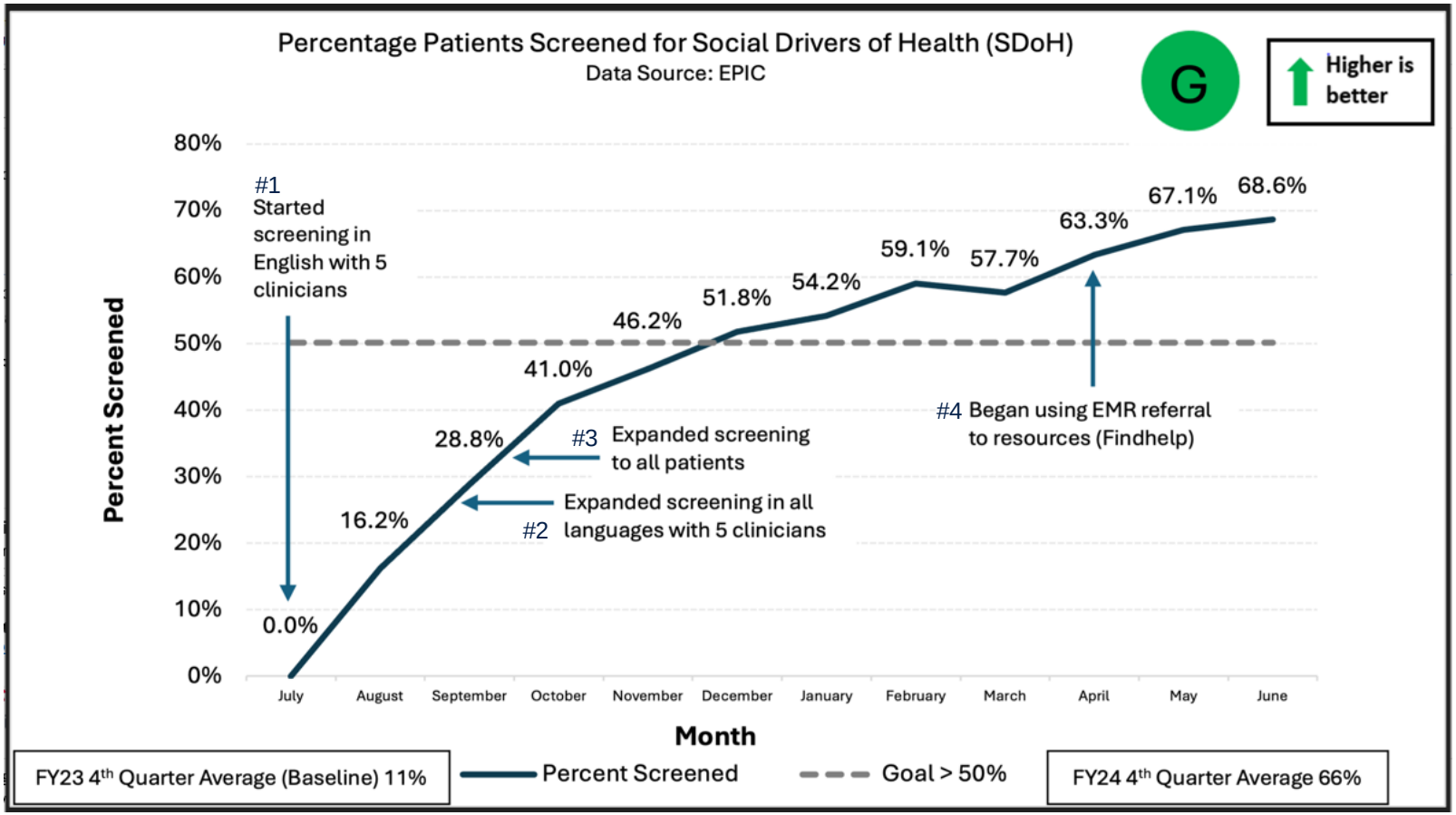


*Food insecurity responses: never true, sometimes true, often true, chooses not to answer
*Transportation: Yes, no, chooses not to answer



Process Map - PDSA #1: A Tale of Two Cities



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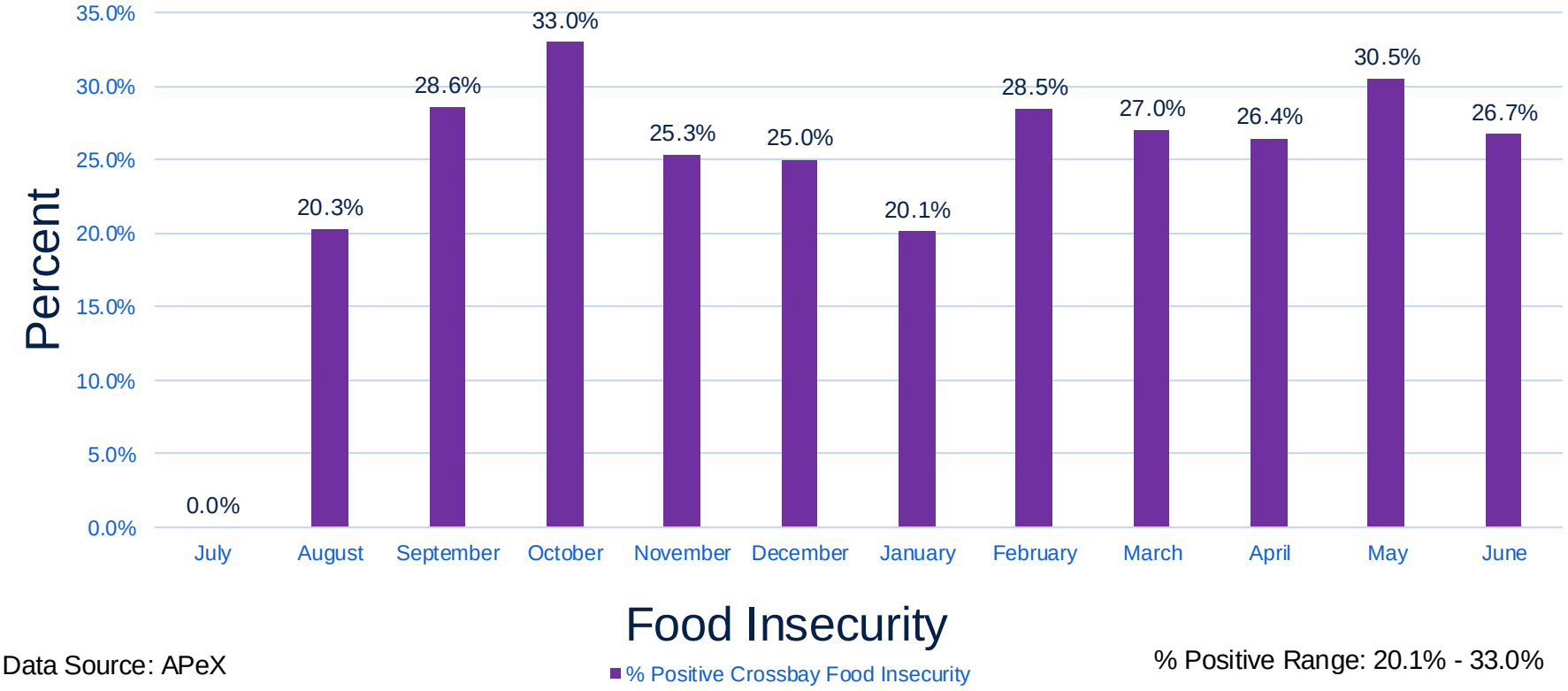
% Screening Positive for Food Insecurity FY24



Data Source: APeX

% Positive Range: 20.1% - 33.0%

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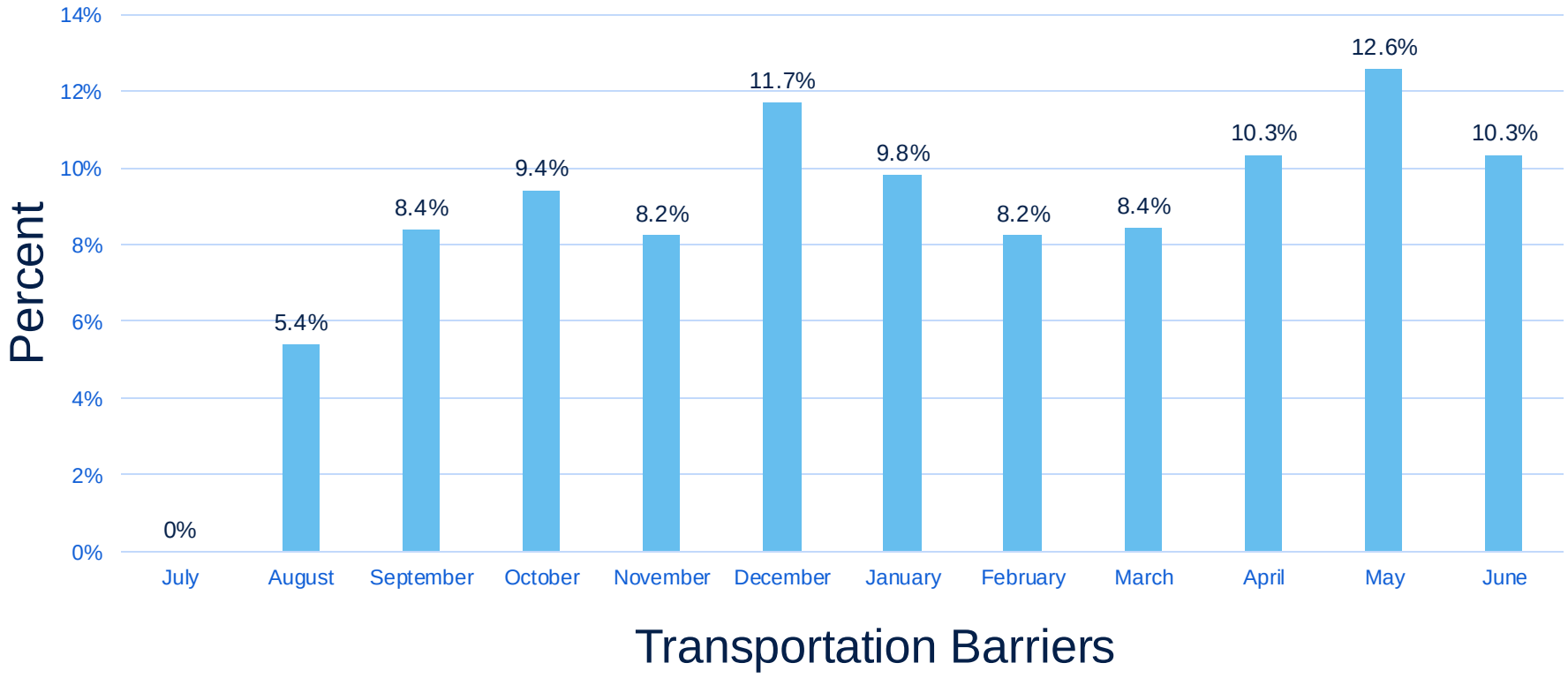
% Screening Positive for Transportation Barriers FY24



Data Source: APeX

% Positive Range: 5.4% - 12.6%

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SDoH Goal and Interventions for FY25

FY25 Goal: Increase annual screening rates for SDoH [food insecurity, and transportation] from a FY24 baseline of 46.3% to **> 75%** by the end of FY25.

Potential Future Screening Interventions:

- Decrease Frequency of Screenings
- Additional Domains
- MyChart
- Telehealth visits
- Satellite clinics
- Welcome Application

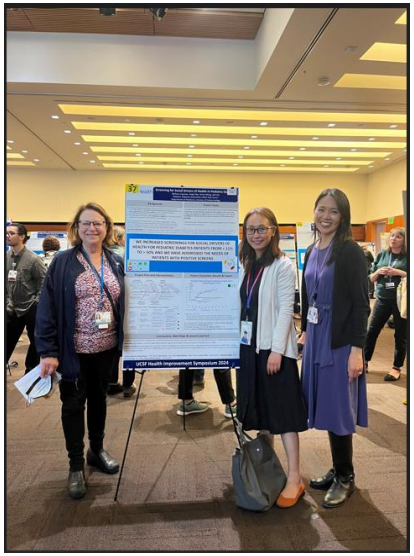
SDoH Taskforce Members

West Bay

- **Jenise Wong** MD PhD
- **Katie Hynes** RD, CDCES
- **Andrea Nunez** SW
- **Nicole Rotter** PNP, CDCES

East Bay

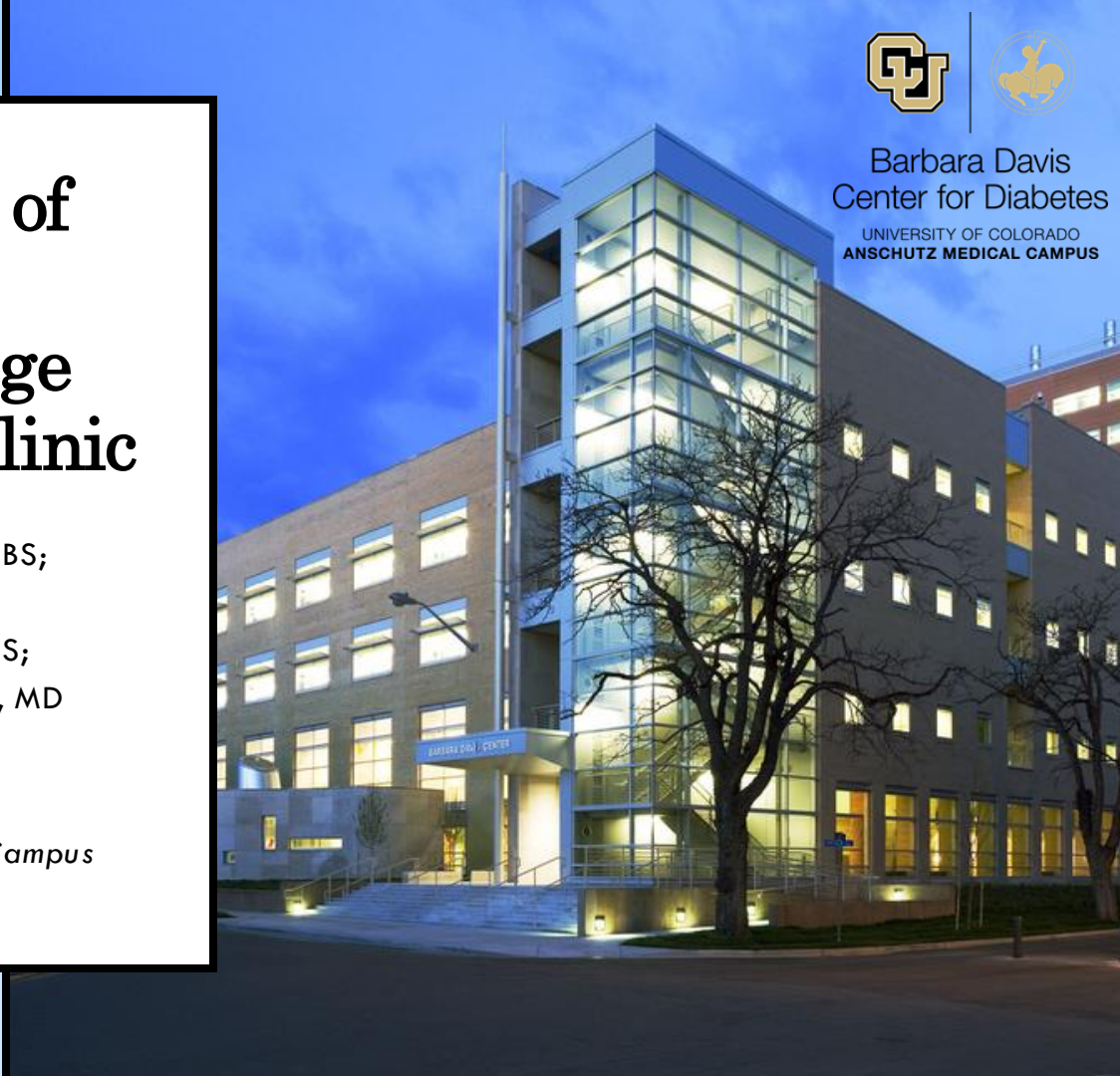
- **Angel Nip** MD
- **Mackenzie Allen** RD
- **Rocel Gamiao** LCSW
- **Yanming Jiang** RD, CDCES
- **Lauren Kelly** MSW



Full-Scale Launch of Eating Disorder Screening at a Large Pediatric Diabetes Clinic

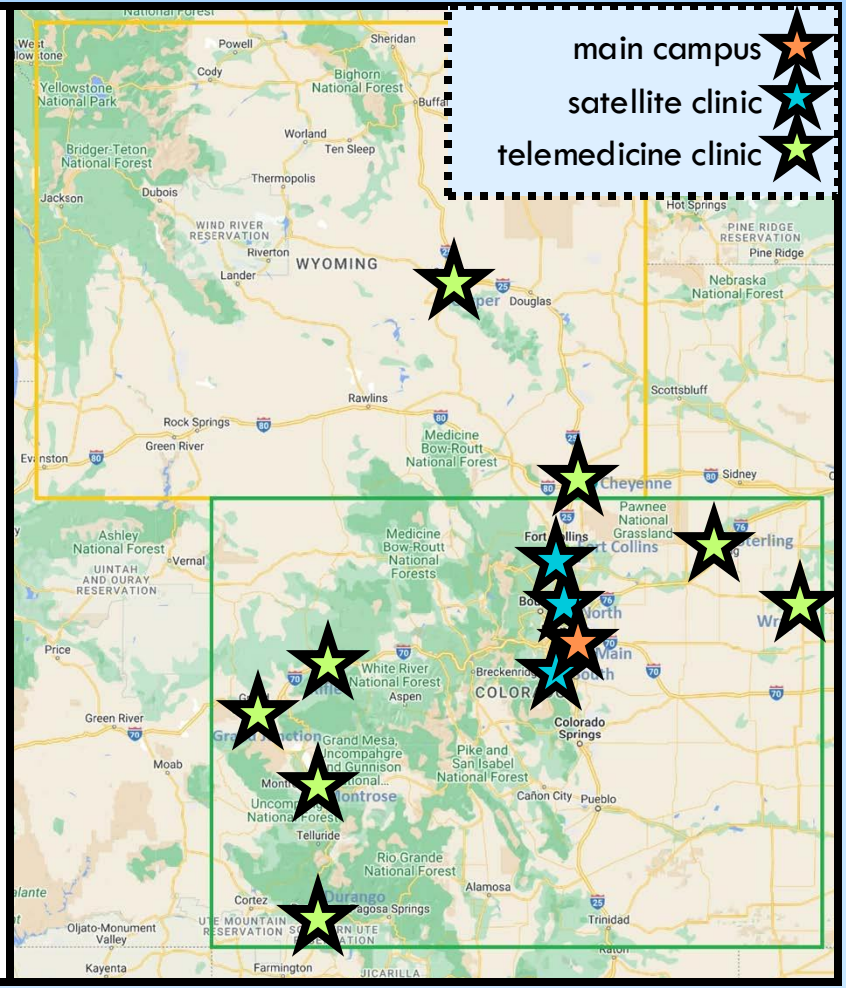
Claire Zimmerman; Rebecca Campbell, BS;
Ellen Fay-Itzkowitz, LCSW, CDCES;
Alexander Meyer, BS; Bailey Tanner, BS;
Holly K. O'Donnell, PhD; G. Todd Alonso, MD

Barbara Davis Center for Diabetes,
University of Colorado Anschutz Medical Campus



Background

- Main campus: 4,000 T1D patients
  - 12,000 visits annually
- 3 satellite clinics
- Telemedicine



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Background cont'd

- Routine screening for disordered eating recommended for people with type 1 diabetes (ADA, ISPAD)
- Disordered eating behaviors can lead to severe medical complications
- Clinical pilot in 2023

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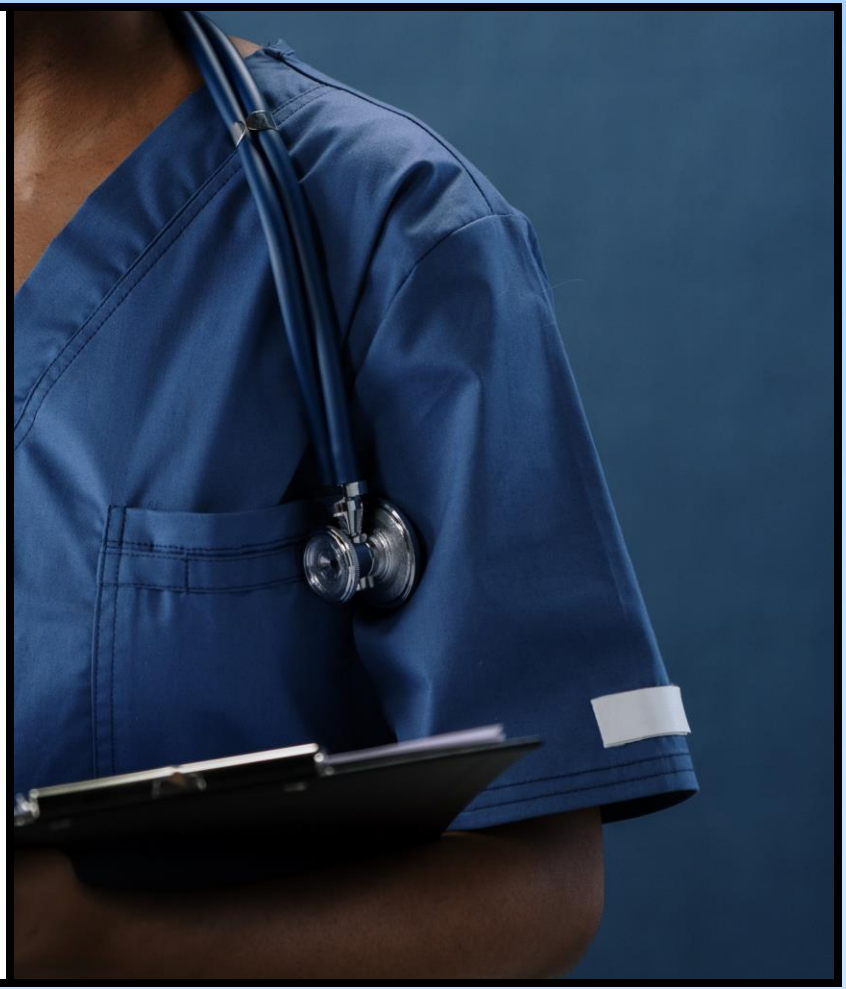
doi:10.2337/dc24-S014

Objectives

- Use quality improvement methods to scale up disordered eating screening at four pediatric diabetes clinic locations

- Utilize Disordered Eating Problem Survey-Revised (DEPS-R) to assess patients ≥12 years old at least once per year at in-person visits



Methods

- Bi-weekly multidisciplinary team meetings comprised of psychology, endocrinologists, a patient navigator, QI coordinator, dietitian, social worker, and medical assistant

- Training provided at staff meetings and via email

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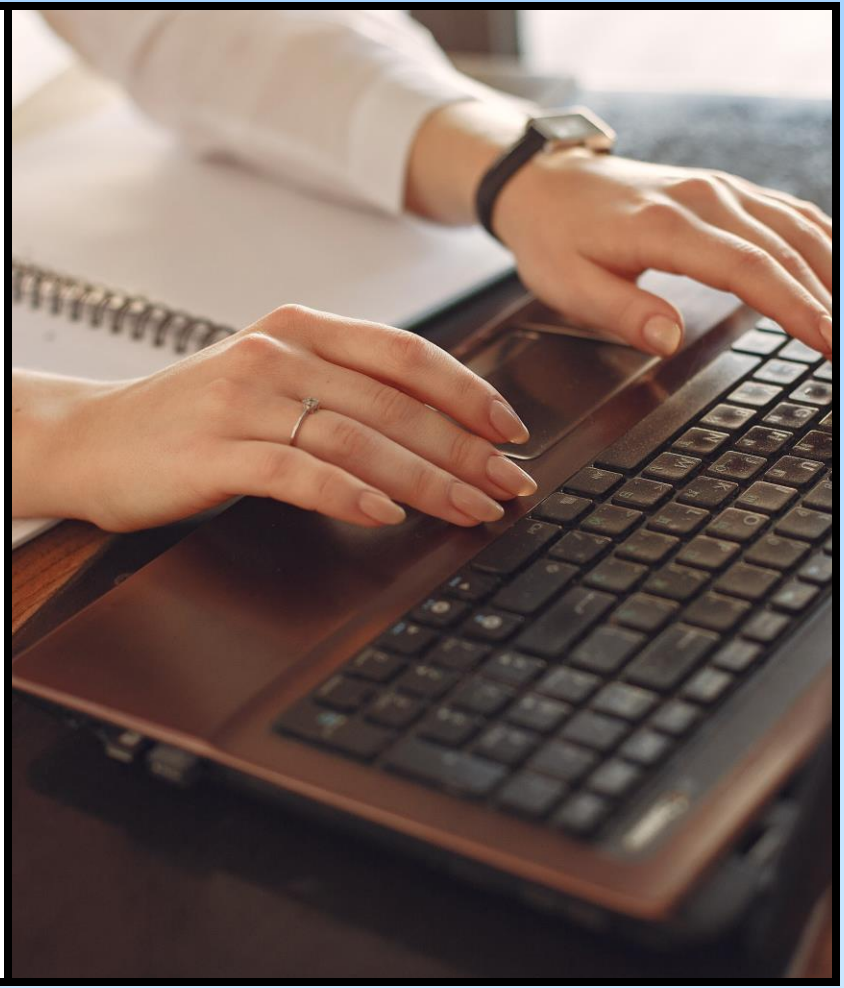
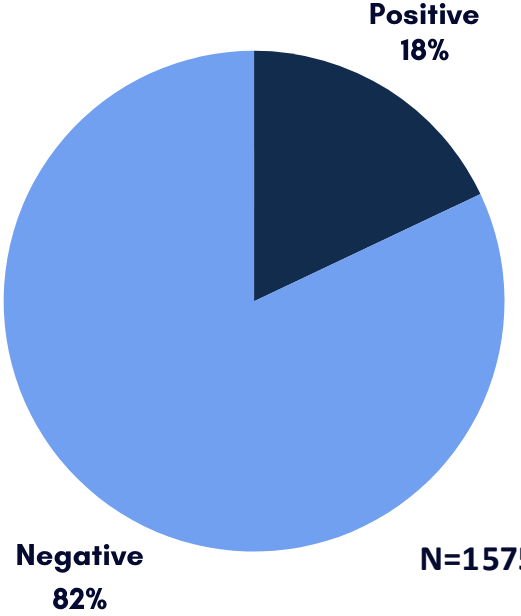
Methods cont'd

- Began with surveys on REDCap with staff entering data into EMR → Patients use tablet linked to EMR.
- Automated template appeared in providers' notes with results and next steps
- Positive screening results automatically add referral recommendations

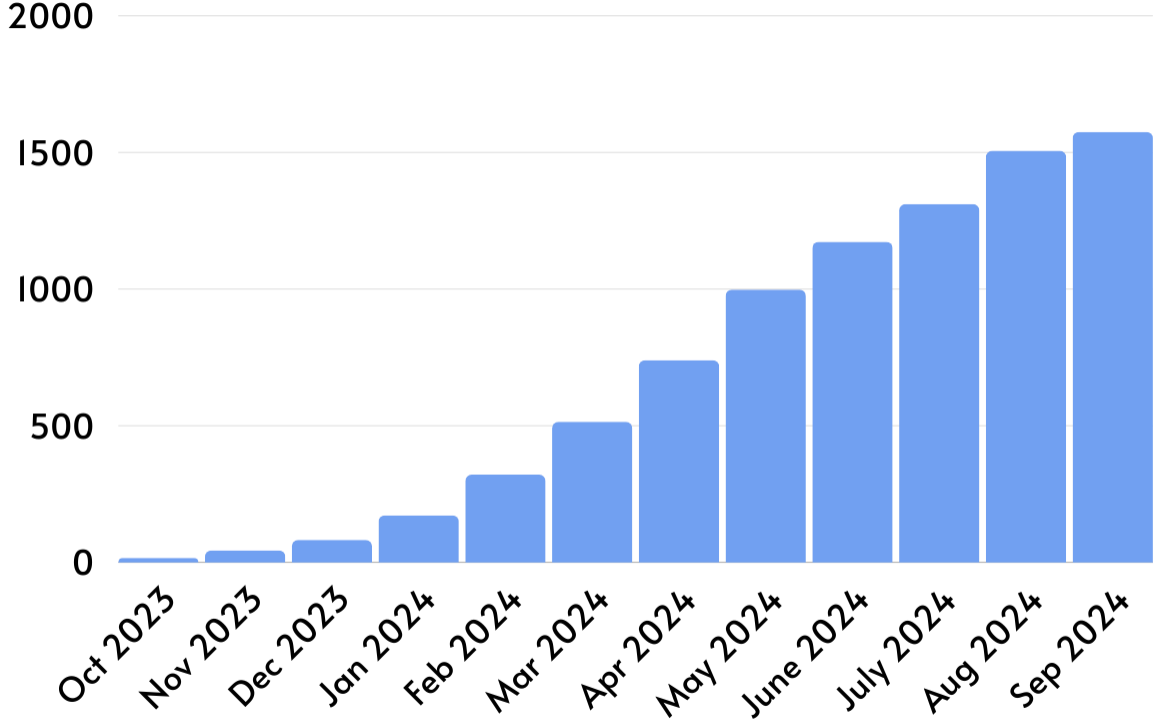


Results

% Positive Screenings



Cumulative Completed DEPS-R Screenings



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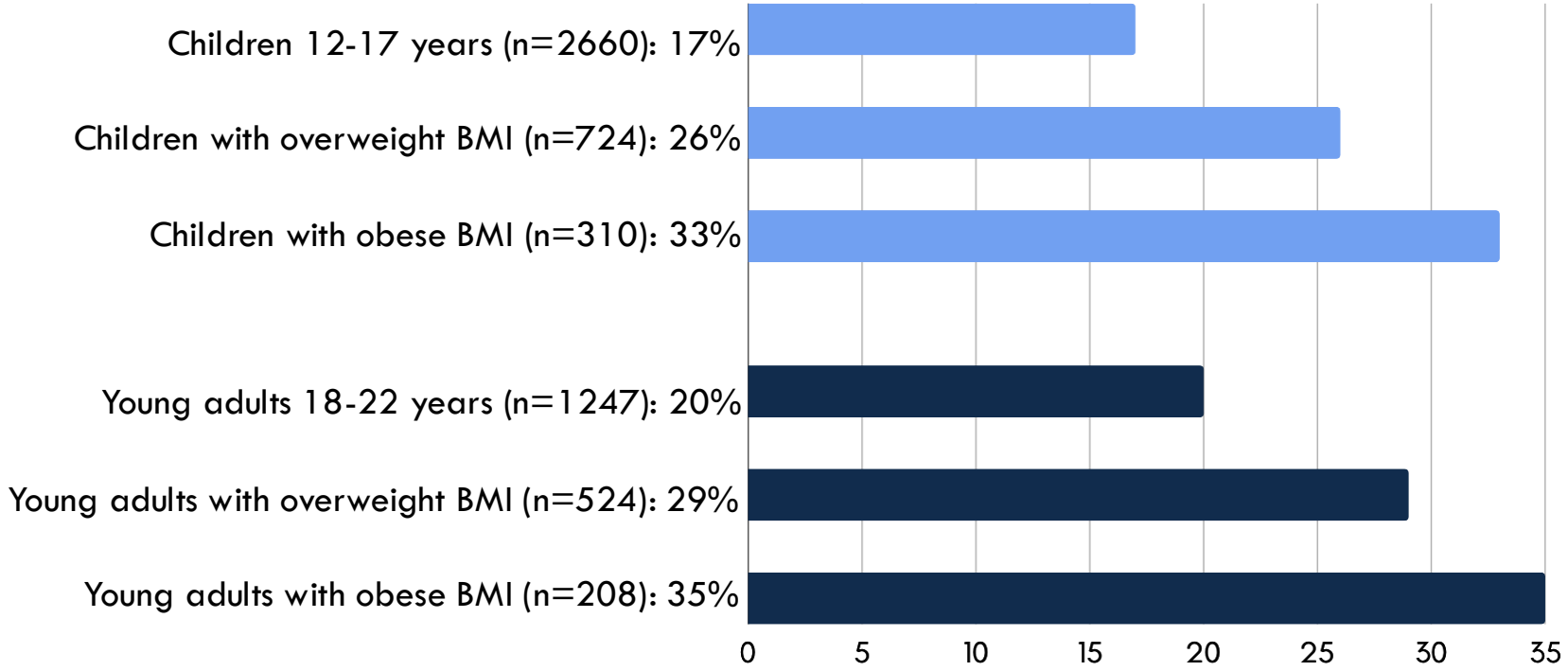
doi:10.2337/dc09-1890

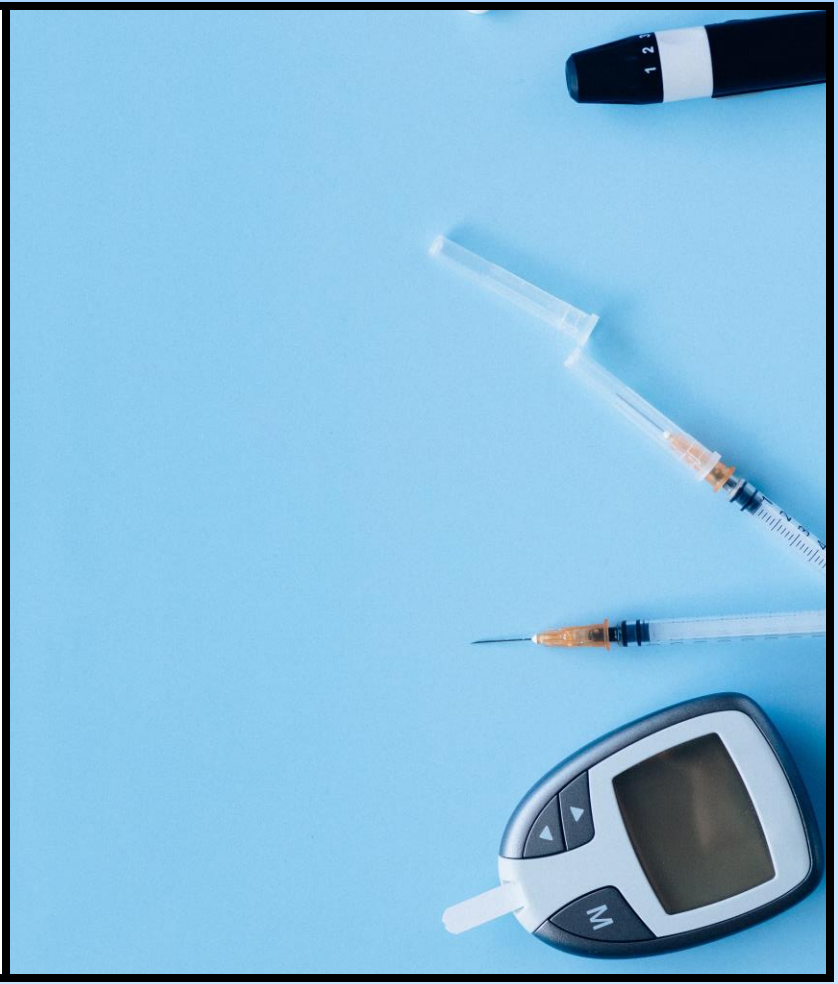
Results cont'd

Adults and patients with overweight/ obesity more likely to score positive



Conclusions

- Disordered eating is common in youth and young adults
- Automated screening processes improve screening rates
- Providers need to be trained to handle positive scores- emphasize validate and refer
- Patients with positive scores need to be referred for care



Thank you!

Questions?

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Improving Depression Screening Rates among Adolescents with Type 1 Diabetes using Limited Clinical Resources

Samantha Jimenez, MD; Stephanie Crossen, MD, MPH; Mia Silva, BS; Amber Lao, CMA; Sarah Woods, NP; Rachael Lee, NP; Stephanie Christensen, MD; Shelby Chen, MD; Nicole Glaser, MD; Caroline Schulmeister, MD

Department of Pediatric Endocrinology & Diabetes

Background

Care Team	Patient Population
7 Pediatric Endocrinologists 1 PA-C/RD/CDCES 3 Fellows 3 RN/CDCES 1 RN 2 RD/CDCES 2 MA “diabetes navigators” 1 SW	~650 patients with T1D • 60% publicly insured • 23% Latino • 63% White, 10% Black, 7% Asian, 4% Native American, 16% Other Race • ~70 new T1D diagnoses/year Large geographic area served • >30 counties in CA + western NV + southern OR

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Background

Youth with T1D are at an increased risk of elevated self-reported depressive symptoms compared to peers with prevalence rates ranging from 17% to 63%

Screening for symptoms of depression in children aged 12 and above using validated tools should be done at the initial visit, at periodic intervals and when there is a change in disease, treatment, or life circumstance (ISPAD)

Low baseline screening rates of depression in our clinic

No formal screening process in place

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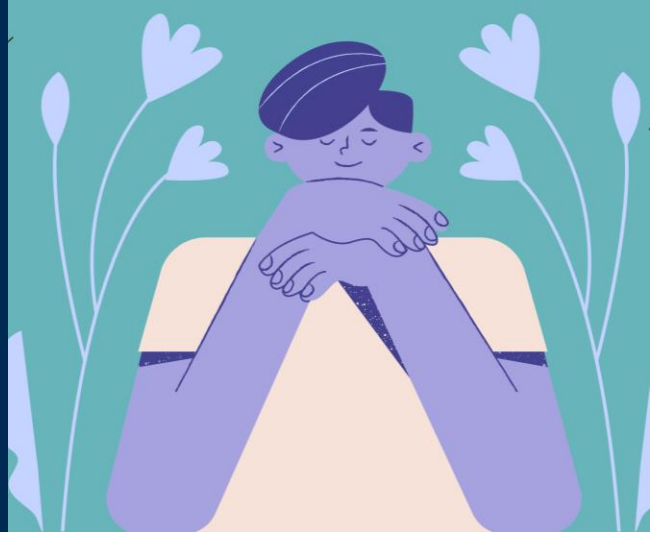
AIM



By August 1, 2024, increase annual depression screening from 23.1% to 70% for patients between the ages of 12 and 18 years old with T1D seen at UC Davis.

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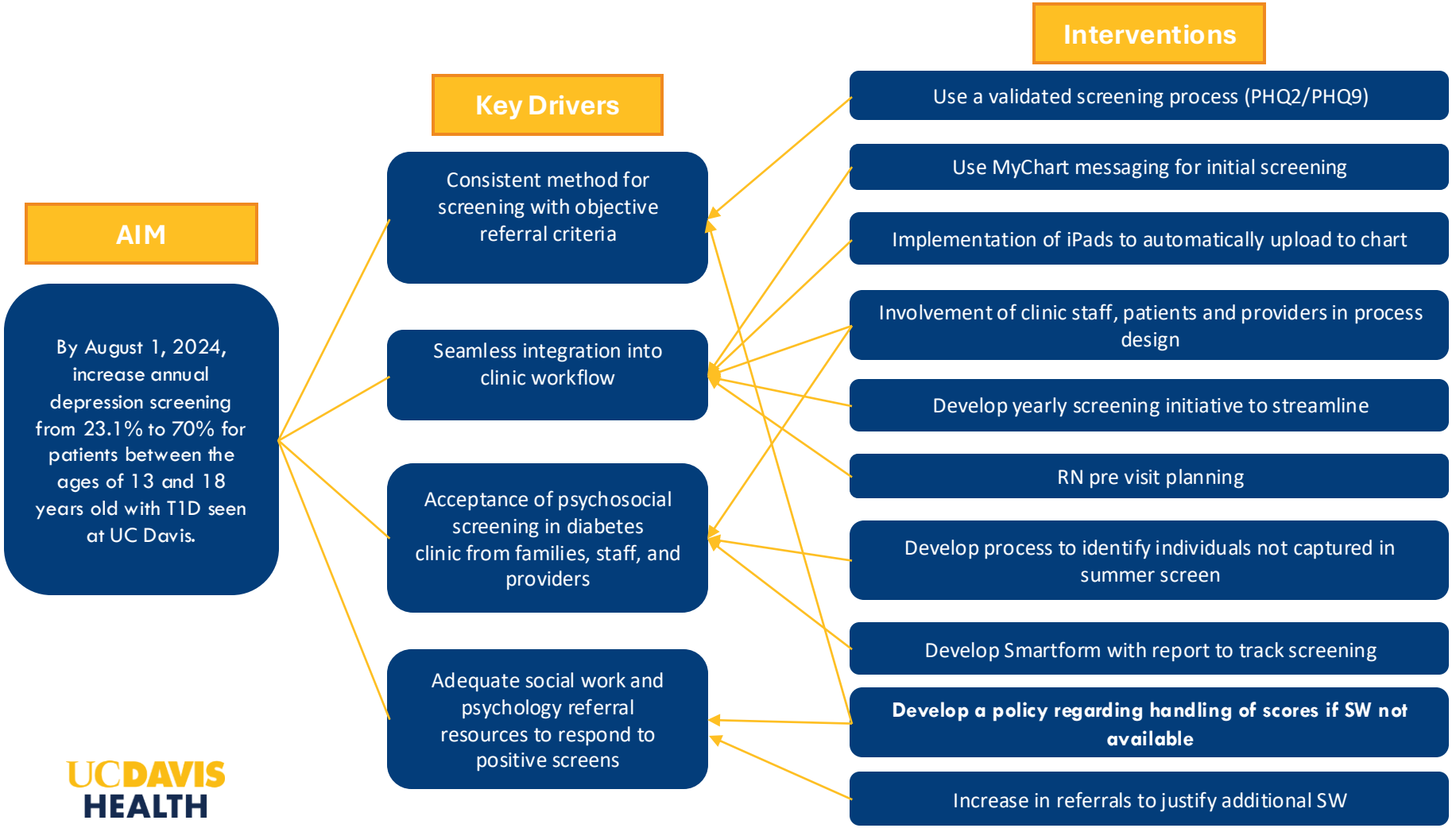

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PDSA #1: ANnual DIabetes Screening Visit (ANDI)

- Two weeks in June & July 2023 - T1D clinic visits only for all ages
- Paper PHQ-2 provided on arrival, if scored >3 completed PHQ-9
- All screening labs ordered
- Seen by physician, RN, RD & SW

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PDSA #1: ANnual DIabetes Screening visit (ANDI)

- Outcome – increase in screening rate from 35-47% (Jan to May 2023) to 63-64% in June/July 2023

- Pitfalls
  - No shows – summer months, visit, no telemedicine visits offered
  - Provider vacation

- Screening rate dropped back down to ~30% the two months following ANDI summer visits

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Next Steps

Optimize annual screening visit process

Process to identify individuals not captured in the summer screening program

System for when social worker is not available

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PDSA #2: Changes to ANDI workflow

- One week per month from July – October
- Changed visit type to be scheduled under patient's usual provider
- Increased awareness of visit type by reminding patients when scheduled, placement of flyers in clinic rooms

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PDSA #2: Develop workflow outside of ANDI

- Full-time social worker hired, dedicated to peds endo clinic
- Smartform developed and added to diabetes note template
- Paper PHQ-2 provided by front desk staff at check-in for all diabetes visits
  - If score >3, social worker notified, provides patient PHQ-9

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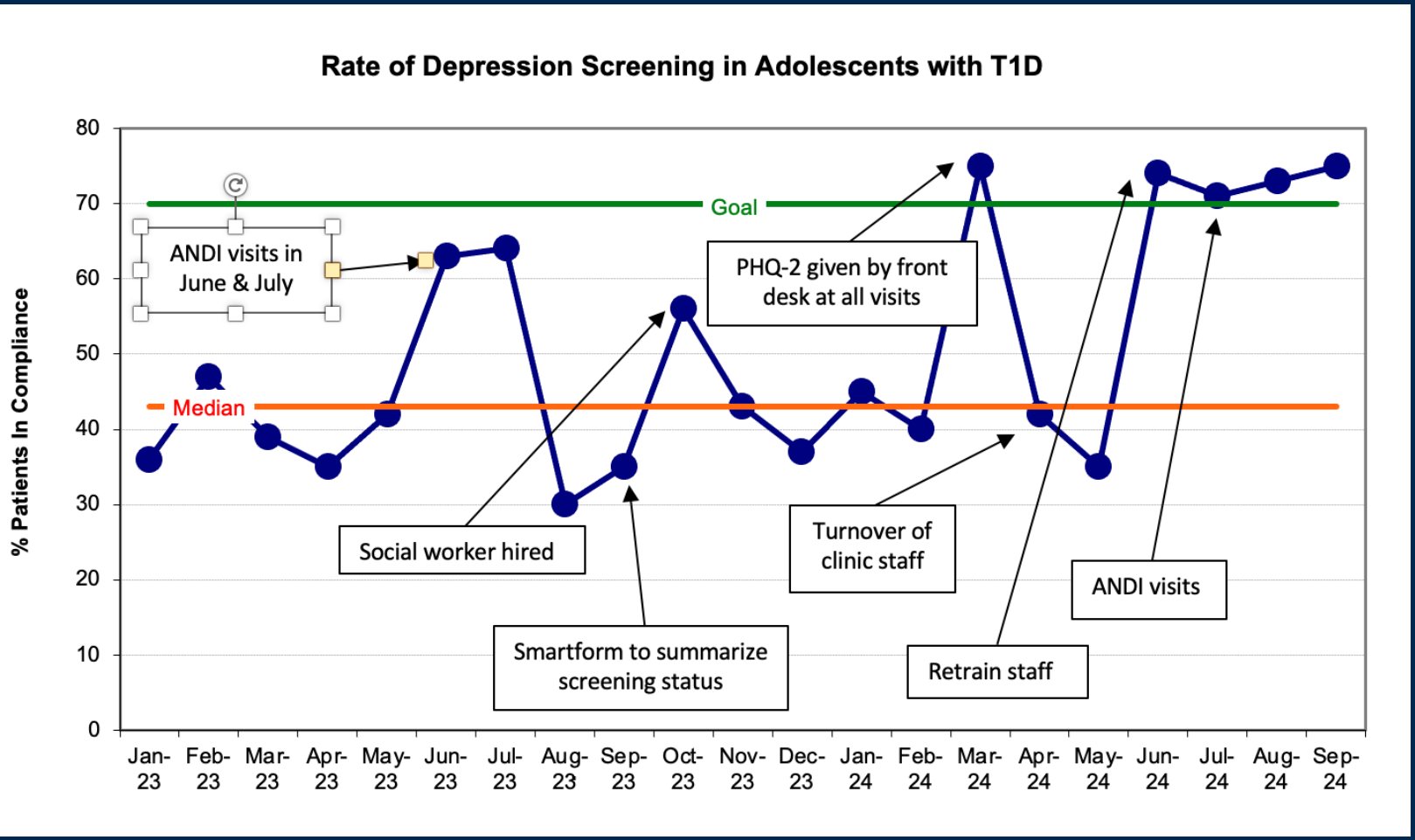
Rate of Depression Screening in Adolescents with T1D
% Patients In Compliance
80
70
60
50
40
30
20
10
0
Goal
Median
ANDI visits in June & July
PHQ-2 given by front desk at all visits
Social worker hired
Smartform to summarize screening status
Turnover of clinic staff
Retrain staff
ANDI visits
Jan-23
Feb-23
Mar-23
Apr-23
May-23
Jun-23
Jul-23
Aug-23
Sep-23
Oct-23
Nov-23
Dec-23
Jan-24
Feb-24
Mar-24
Apr-24
May-24
Jun-24
Jul-24
Aug-24
Sep-24

Current Gaps in Screening

PHQ-2 not provided

- Telemedicine visits
- Language barrier
- Neurodiverse & developmental delays

PHQ-2 not accurate

- Literacy concern
- Parent filling out form
- Not wanting to fill out with parent present

PHQ-2 data missing

- Form lost
- Not entered into EMR before provider/SW sees patient

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Current Gaps in Screening

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PHQ-2 data missing

- Form lost
- Not entered into EMR before provider/SW sees patient

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Conclusion/Future Considerations

- We were able to reach our goal of completing annual depression screening in >70% of adolescents with T1DM via annual screening visits and change to existing workflow
- Further investigation as to why the remainder of patients are still being missed

- Send PHQ-2 via MyChart
- Complete PHQ-2 on tablet to automatically upload into chart
- Rooming adolescents without parent present
- Continue to decrease stigma around mental health, remind patients/families about the association of mental health disorders and T1DM

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Thank you for your interest!

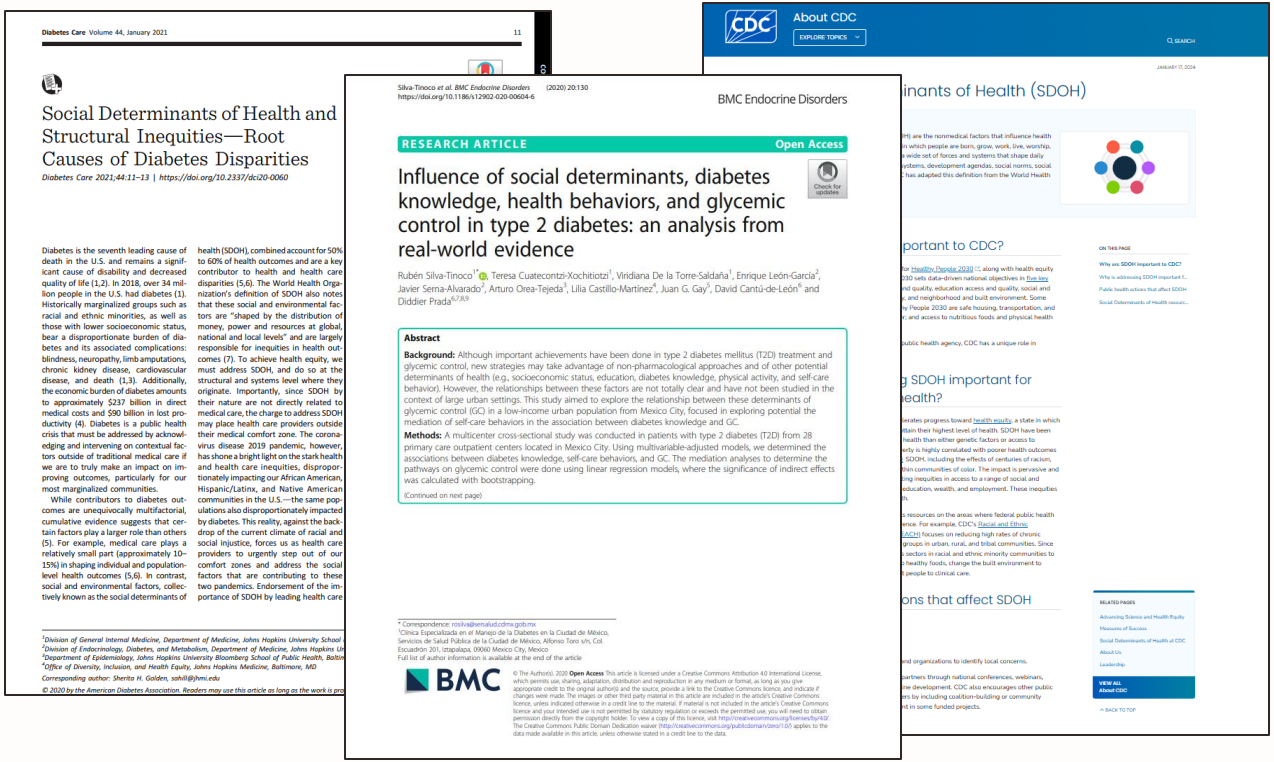
shjimenez@ucdavis.edu

Children's National

Addressing Disparities in Diabetes Care: Implementing SDOH Screening at Diagnosis

November 11, 2024 | Lydia Holly, BSN, RN, Clinical Care Coordinator

Why Screen for SDOH?



Diabetes Care Volume 44, January 2021 11

Social Determinants of Health and Structural Inequities—Root Causes of Diabetes Disparities

Diabetes Care 2021;44:11–13 | https://doi.org/10.2337/dci20-0060

Diabetes is the seventh leading cause of death in the U.S. and remains a significant cause of disability and decreased quality of life (1,2). In 2018, over 34 million people in the U.S. had diabetes (1). Historically marginalized groups such as racial and ethnic minorities, as well as those with lower socioeconomic status, bear a disproportionate burden of diabetes and its associated complications: blindness, neuropathy, limb amputations, chronic kidney disease, cardiovascular disease, and death (1,3). Additionally, the economic burden of diabetes amounts to approximately $237 billion in direct medical costs and $90 billion in lost productivity (4). Diabetes is a public health crisis that must be addressed by acknowledging and intervening on contextual factors outside of traditional medical care if we are to truly make an impact on improving outcomes, particularly for our most marginalized communities.

While contributors to diabetes outcomes are unequivocally multifactorial, cumulative evidence suggests that certain factors play a larger role than others (5). For example, medical care plays a relatively small part (approximately 10–15%) in shaping individual and population-level health outcomes (5,6). In contrast, social and environmental factors, collectively known as the social determinants of health (SDOH), combined account for 50% to 60% of health outcomes and are a key contributor to health and health care disparities (5,6). The World Health Organization's definition of SDOH also notes that these social and environmental factors are "shaped by the distribution of money, power and resources at global, national and local levels" and are largely responsible for inequities in health outcomes (7). To achieve health equity, we must address SDOH, and do so at the structural and systems level where they originate. Importantly, since SDOH by their nature are not directly related to medical care, the charge to address SDOH may place health care providers outside their medical comfort zone. The coronavirus disease 2019 pandemic, however, has shone a bright light on the stark health and health care inequities, disproportionately impacting our African American, Hispanic/Latinx, and Native American communities in the U.S.—the same populations also disproportionately impacted by diabetes. This reality, against the backdrop of the current climate of racial and social injustice, forces us as health care providers to urgently step out of our comfort zones and address the social factors that are contributing to these two pandemics. Endorsement of the importance of SDOH by leading health care

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[3]Department of Epidemiology, Johns Hopkins University Bloomberg School of Public Health, Baltim
[4]Office of Diversity, Inclusion, and Health Equity, Johns Hopkins Medicine, Baltimore, MD

Corresponding author: Sherita H. Golden, sahil@jhmi.edu

Silva-Tinoco *et al. BMC Endocrine Disorders* (2020) 20:130
https://doi.org/10.1186/s12902-020-00604-6

BMC Endocrine Disorders

RESEARCH ARTICLE Open Access

Influence of social determinants, diabetes knowledge, health behaviors, and glycemic control in type 2 diabetes: an analysis from real-world evidence

Rubén Silva-Tinoco[1*], Teresa Cuatecontzi-Xochitiotzi[1], Viridiana De la Torre-Saldaña[1], Enrique León-García[2], Javier Serna-Alvarado[3], Arturo Orea-Tejeda[3], Lilia Castillo-Martínez[4], Juan G. Gay[5], David Cantú-de-León[6] and Diddier Prada[6,7,8,9]

Abstract

Background: Although important achievements have been done in type 2 diabetes mellitus (T2D) treatment and glycemic control, new strategies may take advantage of non-pharmacological approaches and of other potential determinants of health (e.g., socioeconomic status, education, diabetes knowledge, physical activity, and self-care behavior). However, the relationships between these factors are not totally clear and have not been studied in the context of large urban settings. This study aimed to explore the relationship between these determinants of glycemic control (GC) in a low-income urban population from Mexico City, focused in exploring potential the mediation of self-care behaviors in the association between diabetes knowledge and GC.

Methods: A multicenter cross-sectional study was conducted in patients with type 2 diabetes (T2D) from 28 primary care outpatient centers located in Mexico City. Using multivariable-adjusted models, we determined the associations between diabetes knowledge, self-care behaviors, and GC. The mediation analyses to determine the pathways on glycemic control were done using linear regression models, where the significance of indirect effects was calculated with bootstrapping.

(Continued on next page)

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Full list of author information is available at the end of the article

About CDC

EXPLORE TOPICS

SEARCH

inants of Health (SDOH)

portant to CDC?

g SDOH important for ealth?

ons that affect SDOH

Children's National

Project Aim

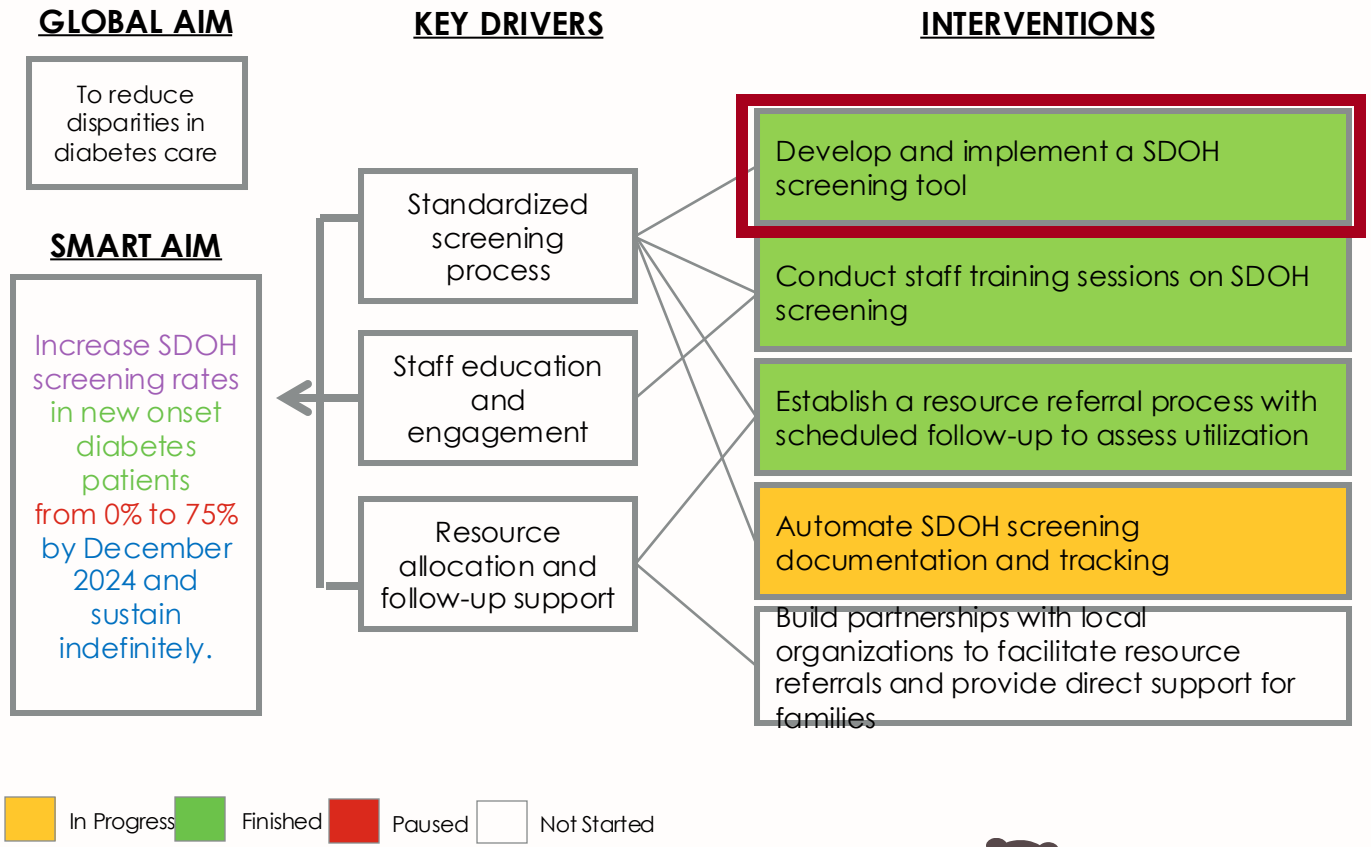
Increase social determinants of health (SDOH) screening rates

in new onset diabetes patients

from 0% to 75%

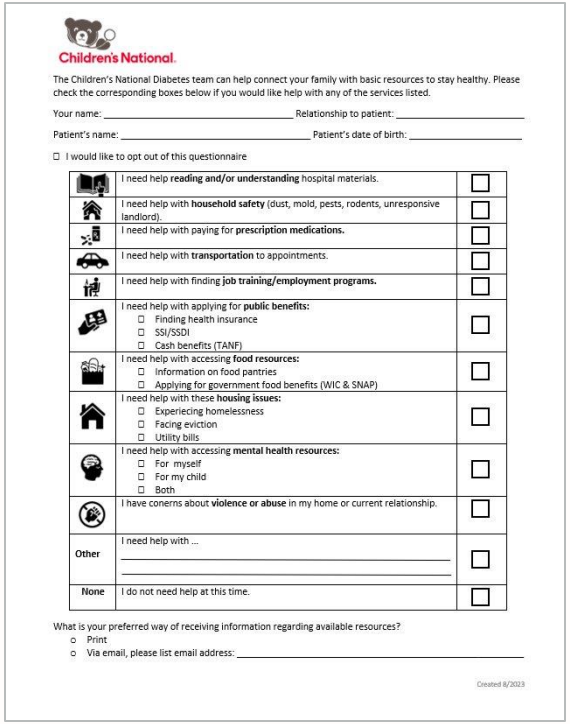
by December 2024 and sustain indefinitely.

Children's National



Children's National

Methods: Screening Domains



Children's National

The Children's National Diabetes team can help connect your family with basic resources to stay healthy. Please check the corresponding boxes below if you would like help with any of the services listed.

Your name: _____ Relationship to patient: _____

Patient's name: _____ Patient's date of birth: _____

☐ I would like to opt out of this questionnaire

	I need help **reading and/or understanding** hospital materials.	☐
	I need help with **household safety** (dust, mold, pests, rodents, unresponsive landlord).	☐
	I need help with paying for **prescription medications.**	☐
	I need help with **transportation** to appointments.	☐
	I need help with finding **job training/employment programs.**	☐
	I need help with applying for **public benefits:** ☐ Finding health insurance ☐ SSI/SSDI ☐ Cash benefits (TANF)	☐
	I need help with accessing **food resources:** ☐ Information on food pantries ☐ Applying for government food benefits (WIC & SNAP)	☐
	I need help with these **housing issues:** ☐ Experiecing homelessness ☐ Facing eviction ☐ Utility bills	☐
	I need help with accessing **mental health resources:** ☐ For myself ☐ For my child ☐ Both	☐
	I have conerns about **violence or abuse** in my home or current relationship.	☐
Other	I need help with ... _____ _____	☐
None	I do not need help at this time.	☐

What is your preferred way of receiving information regarding available resources?

- o Print
- o Via email, please list email address: _____

Created 8/2023

- Assesses 10 social determinants of health
  - Health literacy
  - Household safety
  - Housing
  - Financial (prescriptions)
  - Employment
  - Transportation
  - Public benefits
  - Food insecurity
  - Mental health
  - Domestic violence
- Available in English, Spanish, and Amharic

Children's National

Methods: Inpatient Workflow

Social Worker meets with patient and family during inpatient new onset diagnosis

Parent completes SDOH screen and reviews with Social Worker

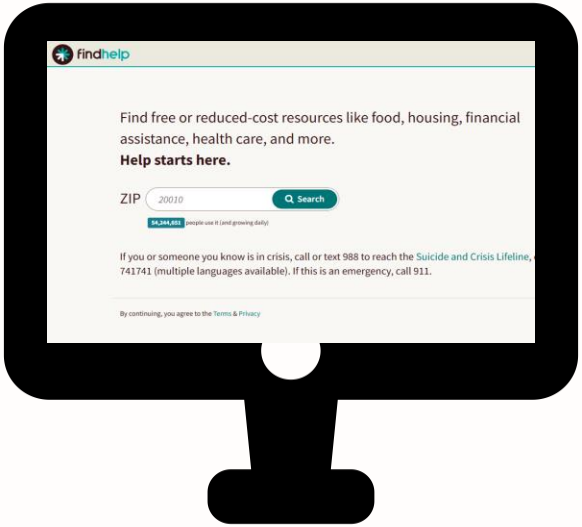
Social Worker provides tailored resources to address identified barriers

Diabetes Health Coach checks in one-week post-diagnosis to assess resource utilization

Children's National

Methods: Resource Provision

- Families identifying barriers are connected with individualized resources
- The Diabetes Health Coach conducts a follow-up call to ensure effective utilization and provide ongoing assistance



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PDSA Cycle

August 2023: Initial screening tool developed & pilot tested

September 2023: Inpatient TID rollout and workflow integration

October 2023: Formalized tracking & follow-up process

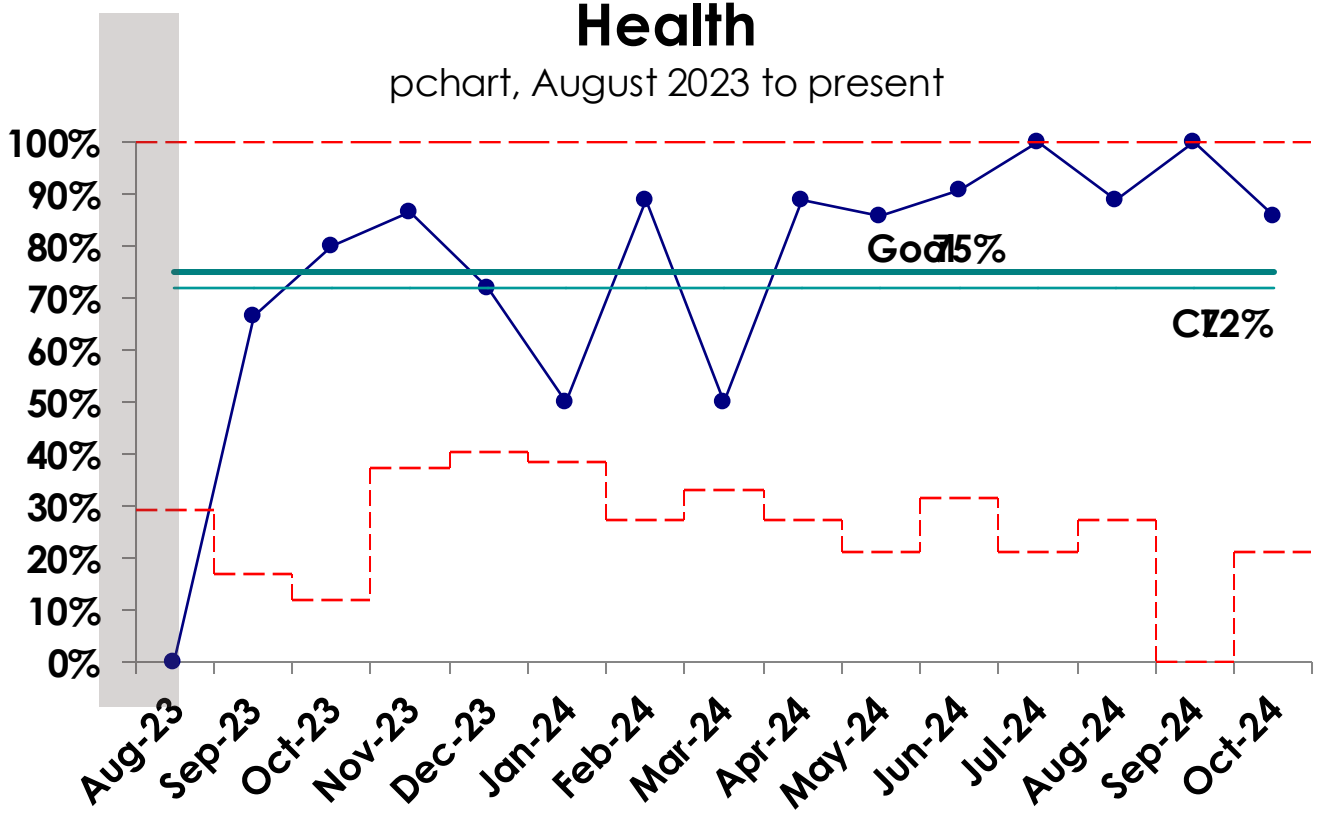
April 2024: Introduced automated reminder notifications

July 2024: Health Coach added to administratio n process

Children's National

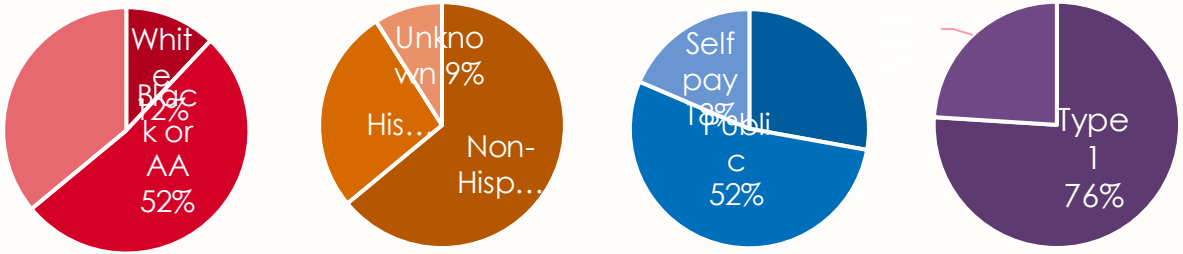
Percentage of Eligible Patients Screened for Social Determinants of Health

pchart, August 2023 to present



Understanding the Data: Key Demographics

Of those who identified at least one SDOH barrier:



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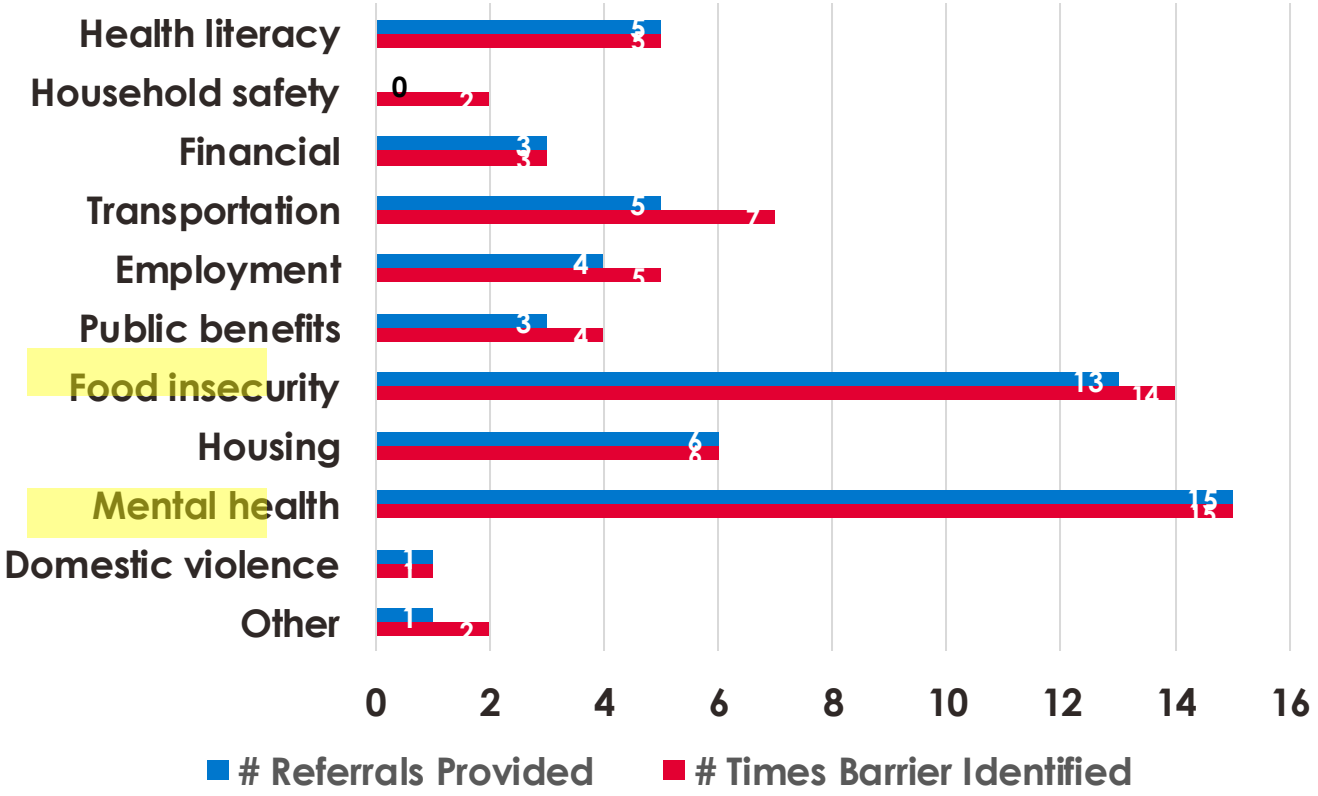
SDOH Barrier Identification & Resource Provision



Key Challenges & Insights

Challenges in implementation

Staffing and resource limitations

Workflow integration

Lessons Learned

- Engage the team
- Optimize where possible

- Start small
- Clearly define the process

Impact & Next Steps

- **Informed care:** newfound awareness of the barriers a family may be facing at home
- **Identifying disparities:** pinpoint which groups face more social barriers
- **Prioritize resources:** allocate resources effectively to high-need populations

Impact & Next Steps

Future directions

- Partnering with hospital leadership to expand screening to follow-up visits
- Evaluating SDOH impact on diabetes care outcome measures
- Collaborating with community partners to bolster resource networks

Thank You